DUFF and NORTON JACKS

Rec'd OCT 24 1929

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Duff-Norton Jacks

All Jacks described in the following pages are made by The Duff-Norton Manufacturing Company, the world's oldest and largest manufacturer of Lifting Jacks.

The Duff-Norton standards of quality, strength, simplicity, safety, ease of operation, and long life are made possible by the manufacturer's 45 years specialized experience in Jack building.

Duff-Norton Jacks are used everywhere and in all lines of industry, such as railroading, ship building, bridge construction, contracting, excavating, mining, oil-well drilling, telephone cable work, automobile and truck repair, etc.

In addition to Jacks illustrated herein we also manufacture other Jacks and other tools for special purposes.

When you require a Jack for any purpose whatever, there is a Duff-Norton Jack best suited for that work. Ask your dealer or write us for full information.

THE DUFF-NORTON MANUFACTURING COMPANY

General Offices, Pittsburgh, Pa., U. S. A.

Canadian Branch

A. O. Norton, Ltd., Coaticook, P. Q., Canada

Successor to

The Duff Manufacturing Co., Pittsburgh, Pa.
A. O. Norton, Inc., Moline, Ill.
A. O. Norton, Ltd., Coaticook, P. Q., Canada

Branch Offices

250 Park Avenue
NEW YORK, N. Y.

Peoples Gas Building
CHICAGO, ILL.

Railway Exchange Building
ST. LOUIS, MO.

421 Chestnut Street
PHILADELPHIA, PA.

Monadnock Building
SAN FRANCISCO, CALIF.

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HOUSTON, TEXAS

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Uniform Excellence Assured by Duff-Norton Manufacturing Facilities

Each of the following carefully managed departments has its share and responsibility in building for you the finest Jacks money can buy.

The **Engineering Department,** with its forty-five years' experience in the designing of Jacks, carefully studies and tests each model, and is constantly improving them or developing new ones.

The **Laboratory** tests all raw material as soon as received to insure that it meets the rigid specifications set by the Engineering Department.

The **Forge Shop,** with its powerful hammers, produces drop-forged Jack parts of greatest strength and density.

The **Machine Shop,** modern in every detail, turns out finished material accurately cut, insuring close fit and true alignment of parts.

The **Heat-Treating Department,** provided with the latest scientific methods of control, and run by experts, produces working parts as hard and strong as the art can make them.

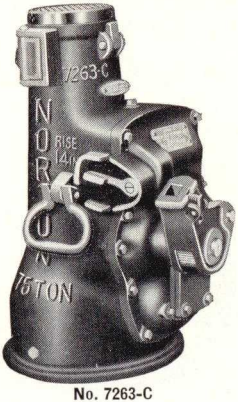
The **Inspection Department** acts as a further assurance of the flawlessness and accuracy of the finished parts.

The **Testing Department** makes a final test under **moving load** of the assembled Jack to check its rated capacity.

The **Canadian Plant** with its exceptional facilities for production and distribution affords prompt shipment throughout the Dominion of Canada.

This complete chain of manufacturing links assures you of getting a thoroughly reliable tool, whenever and wherever purchased. You are certain of **Duff-Norton Uniform Excellence.**

Norton Self-Lowering Speed-Controlled Jacks



No. 7263-C

Inverted Type—High-Speed Design
Capacities—75 and 100 Tons

These models represent the very latest development in modern heavy duty Lifting Jacks and combine only those features that have fully stood the test of severe usage over many years' time.

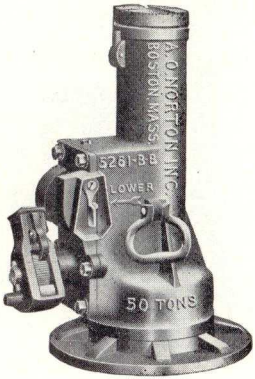
The standard is semi-keyed, permitting it to be quickly turned up or down by hand, but to be rigidly held during operation. Lubrication of all parts is automatic, insuring long life and ease of operation. The extra high rise is a distinct advantage on certain classes of work.

Used for lifting locomotives, heavily loaded cars and all purposes where small head with heavy lifting capacity is required.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Diam. of Base Inches	Weight Pounds	Code Word	List Price
7203 C	75	20	8	14	315	**Caddy**	**$285.00**
7243 C	75	24	12	14	335	**Cage**	**285.00**
7263 C	75	26	14	14	347	**Cater**	**285.00**
1203 C	100	20	7½	14	325	**Cold**	**305.00**
1243 C	100	24	11½	14	342	**Coke**	**305.00**
1263 C	100	26	13½	14	358	**Concur**	**305.00**

Jacks listed above can be supplied with our Jack carriage shown on page 5.

Norton Self-Lowering Speed-Controlled Jacks



No. 5261-BB

Inverted Type
Capacities—25, 35 and 50 Tons

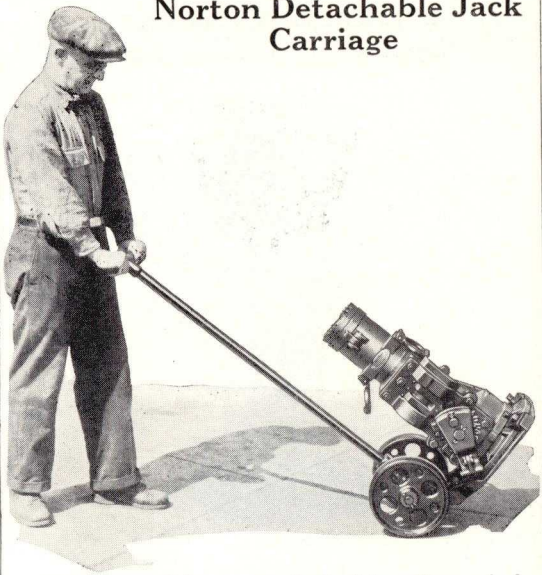
For locomotive, car and general heavy lifting. The small head permits placing the jack squarely under the load.

For coaches and Pullmans, Style 5361BB is recommended—its long lift enables the trucks to be removed without re-blocking.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Diam. of Base Inches	Weight Pounds	Code Word	List Price
2261 BB	25	26	14	12	155	**Ink**	**$125.00**
2301 BB	25	30	18⅜	12	168	**Iberia**	**125.00**
3261 BB	35	26	13¾	12	190	**Income**	**150.00**
3301 BB	35	30	17½	12	195	**Ice**	**160.00**
5241 BB	50	24	12	14	257	**Idol**	**210.00**
5261 BB	50	26	14	14	266	**Ivy**	**210.00**
5301 BB	50	30	18	14	280	**Impel**	**230.00**
5361 BB	50	36	24	14	310	**Iris**	**250.00**

50-Ton Jacks listed above can be supplied with our Jack Carriage, shown on page 5.

Norton Detachable Jack Carriage



The most satisfactory method of trundling a jack is by means of the detachable carriage.

In a shop, where there are several jacks, one of these carriages can be used to handle all of them. Only a minute's time is required to fasten on any jack with a 14 or 16-inch diameter base.

The adjustable handle of this carriage permits the operator to easily transport the jack or set it at any desired point under the load. The handle can also be laid down out of the way, or readily removed from the carriage entirely.

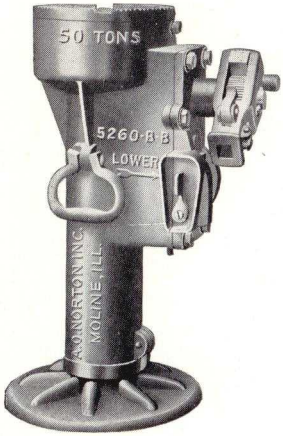
Large (10-inch) wheels are used, this allowing the jack to be easily handled over the roughest floors or uneven ground. They are designed exceptionally strong and rugged, which insures against breakage from rough handling.

When using a jack under a load the carriage wheels have ample clearance to prevent their coming in contact with the ground which otherwise would cause breakage.

List Prices

14″	$15.00
16″	18.00

Norton Self-Lowering Speed-Controlled Jacks



No. 5260-BB

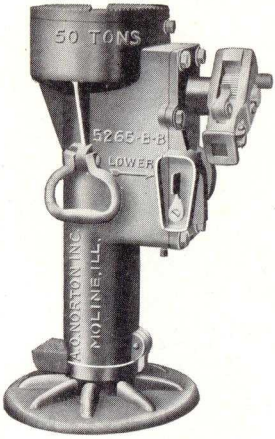
Capacities—25, 35 and 50 Tons

For Round House, Heavy Loaded Cars and General Use

Jack No.	Capacity Tons	Height Inches	Raise Inches	Diam. of Base Inches	Weight Pounds	Code Word	List Price
2260 BB	25	26	14½	12	150	**Sedan**	**$120.00**
2300 BB	25	30	18¾	12	170	**Sheep**	**125.00**
3260 BB	35	26	13¾	12	187	**Sauce**	**150.00**
3300 BB	35	30	17⅝	12	195	**Scot**	**160.00**
5200 BB	50	20	8½	14	245	**Seed**	**205.00**
5240 BB	50	24	12	14	248	**Song**	**210.00**
5260 BB	50	26	14	14	262	**Sand**	**210.00**
5300 BB	50	30	18	14	285	**Sack**	**230.00**
5360 BB	50	36	24	16	317	**Sound**	**250.00**

50-Ton Jacks listed above can be supplied with our Jack Carriage shown on page 5.

Norton Self-Lowering Speed-Controlled Foot-Lift Jacks



No. 5265-BB

Capacities—25 to 100 Tons

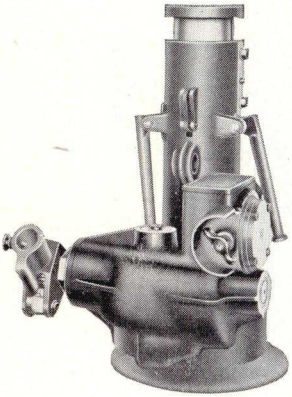
For Bridge and Wrecking Work

These jacks are all rated for head lift. We do not guarantee the foot-lift beyond one-half the rated capacity of the jack.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Size of Base Inches	Weight Pounds	Code Word	List Price
2265 BB	25	26	14½	12	158	**Sod**	**$125.00**
3225 BB	35	22	10	12	170	**Slug**	**150.00**
3265 BB	35	26	13¾	12	196	**Snow**	**155.00**
5205 BB	50	20	8½	14	245	**Shine**	**215.00**
5245 BB	50	24	12	14	267	**Sky**	**220.00**
5265 BB	50	26	14	14	275	**Silk**	**225.00**
7265 BB	75	26	12	14	394	**Pride**	**305.00**
1265 BB	100	26	12	14	420	**Ruby**	**310.00**

50, 75 and 100-Ton Jacks listed above can be supplied with our Jack Carriage shown on page 5.

Duff Self-Lowering Jacks Governor Controlled



No. 2675

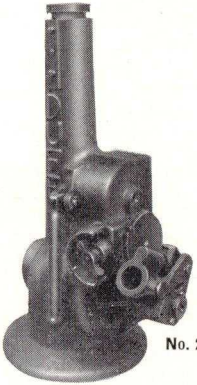
The Duff Governor which controls the lowering speed.

The principle of Governor Control of lowering speed of lifting jacks is entirely new and an exclusive Duff patent. The Governor absolutely controls the lowering speed, and this insures safety under all conditions.

When two or more jacks are used together under locomotives, cars, or other loads, the Governor makes it impossible for one jack to lower more rapidly than the others, thereby eliminating tipping or an uneven lowering of the load. No sudden dropping of load. No excessive wear. No shock to parts.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
2075	75	20	6	330	**Govre**	**$285.00**
2475	75	24	10	345	**Govop**	**285.00**
2675	75	26	12	360	**Govmi**	**285.00**
20100	100	20	6	330	**Govso**	**305.00**
24100	100	24	10	345	**Govos**	**305.00**
26100	100	26	12	360	**Govta**	**305.00**

Duff Self-Lowering Jacks Governor Controlled



No. 2825

Buggy No. 810

Duff Governor Controlled Jacks are safe, positive acting, reliable, and most economical—especially where daily heavy duty is a continuous service demand.

The small head is a distinct advantage. It can be applied in congested places where otherwise the use of jacks with larger heads would be impossible. The small head also prevents applying eccentric loads which cause great strain on working parts and might cause a jack to stick when lowering.

Reduction gears in the governor controlled train are, with few exceptions, interchangeable in all types or tonnages. Rugged construction and accurate workmanship provide greatest economical service.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
2820	20	28	15¼	130	**Govma**	**$100.00**
2825	25	28	15¾	181	**Govet**	**125.00**
2635	35	26	13¾	185	**Govbl**	**150.00**
2835	35	28	15¾	190	**Govga**	**155.00**
2650	50	26	13½	230	**Govho**	**210.00**
2850	50	28	15½	240	**Govte**	**220.00**
3050	50	30	17½	250	**Govik**	**230.00**
3650	50	36	23½	270	**Govlu**	**250.00**

Duff Universal Buggy

The Duff Buggy No. 810, shown above, is designed especially for easy and convenient handling and transporting of Governor Controlled and other DUFF Jacks.

The bases of all DUFF High and Standard Speed Jacks slide easily into the grooves of the buggy carriage. The jack is securely held in an upright position and wheeled about with ease. Also quickly and conveniently removed from the buggy.

Buggy No.	Weight in Pounds	Code Word	List Price
810	54	**Govub**	**$15.00**

Norton Ball-Bearing Journal Jacks

No. 350

These Jacks are designed for car and locomotive journal and inspection work, bridge construction, and are particularly adaptable to many industrial purposes requiring low Jacks for short lift. They are very popular because of their light weight and easy operation.

Capacities—25, 35 and 50 Tons

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
250	25	10	5	34	**Keg**	**$36.00**
350	35	10	5	44	**King**	**55.00**
359	35	9	4	39	**Kid**	**55.00**
500	50	10	4½	61	**Kite**	**95.00**

Norton Short-Lift Jacks

Cone-Bearing Type

No. 1500

These Jacks are similar to the heavy duty railroad journal jacks shown above, except that these have cone bearings instead of ball bearings. Used for general industrial purposes for short lifting of light loads. Easy operation and light weight are features.

Lifting lever supplied with these jacks has pinch bar end.

Capacities—10 and 15 Tons

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
1007	10	7	2½	22	**String**	**$23.00**
1010	10	10	5	27	**Stump**	**23.00**
1500	15	11	5	30	**Sun**	**25.00**
1509	15	9	4	27	**Stew**	**25.00**
1510	15	9¾	4	43	**Stick**	**25.00**

Duff Journal Jacks

Low Height Ball Bearing Screw Jacks

No. 5211

No. 111

Designed for lifting and adjusting low-set loads, tanks, structural material, etc. The built-in positive stop feature in these jacks prevents raising standard out of base. These jacks combine unusually light weight with ample strength for their rated capacities. The interiors of these jacks are packed with semi-fluid grease in which all moving parts revolve. A key in the standard prevents rotation of the jack under load and preserves the alignment of the working parts. Furnished with 3-foot solid steel operating lever with pinch-bar end.

These jacks are without doubt the most universally serviceable journal jacks made, and are widely used by street and steam railways.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
111	15	10	5	29	**Oscar**	**$25.00**
2509	25	9	3½	37	**Orion**	**36.00**
2510	25	10	4½	38	**Osmun**	**36.00**
2511	25	11	5½	39	**Orbit**	**36.00**
3509	35	9	3	47	**Opera**	**55.00**
3510	35	10	4	50	**Organ**	**55.00**
3511	35	11	5	52	**Optic**	**55.00**

Duff and Norton Low Height, Inverted 50-Ton Screw Jacks

No. 5016

No. 5071

The Norton 50-ton inverted jack features a foot lift which will lift the rated capacity of the head. Especially adapted for locomotive and bridge work where a jack with low lifting height is required. The foot lift is made of forged steel and can be instantly removed. Large ball bearings and bearing plates are used which insure long life. The standard is provided with a key to prevent rotation. A very powerful, yet easy operating jack and one that will stand up under hard usage.

The Duff 50-ton low height ball bearing screw Jacks are of sturdy design convenient to spot, easy to operate and durable under continual severe usage. No. 5016 does not have footlift.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Dia. of Base Inches	Dia. of Head Inches	Code Word	List Price
*5071	50 head 50 foot	19¾	7	15	5½	Carl	$135.00
†5016	50	16	7			Obfis	On Application

*Weight with foot lift, 194 lbs; without foot lift, 149 lbs.
†Weight, 100 lbs.

Norton Ball-Bearing Inverted Bridge Jack

No. 912

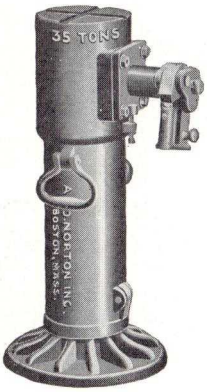
Capacity—12 Tons

A new Norton Jack especially designed for certain bridge work such as lifting stringers, etc. Light in weight, finely built, and fast in operation. The base is made short on one end so that the jack can be located close to adjoining sills, etc. A jack that can be adapted to a multitude of other uses.

Supplied with a 39-inch steel lifting lever, one end of which is made into a pinch-bar.

Jack No.	Cap. Tons	Height Inches	Raise Inches	Size of Base Inches	Diam. of Head Inches	Weight Pounds	Code Word	List Price
912	12	14¾	9	6x7½	3⅛	40	**Frank**	**$42.50**

Norton Ball-Bearing Locomotive and General Purpose Jacks



No. C-35

Capacities—15, 25 and 35 Tons

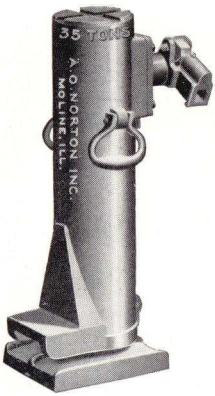
These jacks are very useful for heavy work of any character, including bridge work, car repairing, and the handling of heavy structural material. Especially suitable for rough outdoor usage, all working parts being of sturdy design, packed in grease in leakproof case.

Each jack is designed with carrying handles, one on each side of the jack, and is furnished with a steel operating bar.

Style	Capacity Tons	Height Inches	Raise Inches	Diam. of Base Inches	Weight Pounds	Code Word	List Price
G. B.	15	22	9½	10	98	**Eaton**	**$ 60.00**
NA 20	25	20	8	12	133	**Canon**	**80.00**
NA 26	25	26	14	12	164	**Celery**	**90.00**
No. 100	35	20	8½	14	160	**Clay**	**125.00**
C35	35	26	13	12	175	**Clio**	**125.00**

Norton Ball-Bearing Bridge and Wrecking Jacks

No. B-5024



No. B-3526

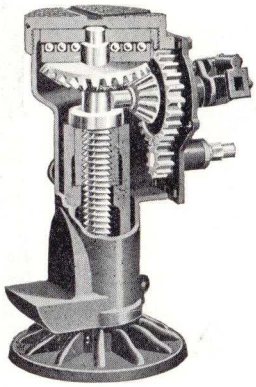
Capacities—15, 25, 35 and 50 Tons

These jacks are all rated for head lift. We do not guarantee the foot-lift beyond one-half the rated capacity of the jack.

*Style F jack is designed to give double speed over other types listed below.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Size of Base Inches	Weight Pounds	Code Word	List Price
B 1522	15	22	10	7½x7½	105	**Abyss**	**$ 60.00**
*F	15	24	12	8x 9	128	**Fruit**	**65.00**
B 2522	25	22	10¼	8x 9¾	140	**Adiust**	**90.00**
B 2526	25	26	14⅜	8x 9¾	157	**Atlas**	**96.00**
B 3522	35	22	10⅝	9x10½	171	**Absent**	**130.00**
B 3526	35	26	14	9x10½	201	**Amber**	**138.00**
B 5024	50	24	9⅝	14	266	**Alto**	**150.00**
B 5027	50	27	13⅜	14	298	**Anchor**	**150.00**

Norton Ball-Bearing Bridge and Wrecking Jacks
(Compound Geared)



No. 93

Capacities—75 and 100 Tons

These jacks are designed for extra heavy bridge and other work, and the capacity is fully guaranteed.

When raising light load (30 to 40 tons) on compound geared jacks, ratchet can be used on **upper** shaft, which gives **more speed.**

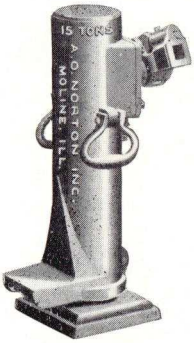
When full power of jack is required, use ratchet on **lower** shaft.

N. B.—These jacks are all rated for head lift. We do not guarantee the foot-lift beyond one-half the rated capacity of the jack.

Jacks listed below can be supplied with our Jack Carriage, shown on page 5.

Jack No.	Capacity Tons	Height over all Inches	Raise Inches	Diam. of Base Inches	Weight Pounds	Code Word	List Price
93	75	27	11⅜	14	329	**Absurd**	**$200.00**
99	100	27	12	14	375	**Almond**	**300.00**

Norton General Purpose Jacks
With Cone Bearings



No. G. F.

Capacities—10 and 15 Tons

These styles are especially adapted for carpenters and builders, boiler makers, truckmen, millwrights, etc.

These jacks are all rated for head lift. We do not guarantee the foot-lift beyond one-half the rated capacity of the jack.

Style	Capacity Tons	Height over all Inches	Raise Inches	Size of Base Inches	Diam. of Head Inches	Weight Pounds	Code Word	List Price
N.J.	10	14	5¾	6 x7½	4	55	**Gale**	**$31.00**
S	15	21⅞	11½	8½ dia.	4⅛	70	**Street**	**34.00**
Y	15	20	8¼	7¾x7¾	4¾	98	**Gent**	**44.00**
GF	15	22	9½	7½x7½	4⅞	105	**Ham**	**45.00**

Duff Horizontal Jack
Ball Bearing Screw Type

No. 3520

Designed for horizontal use in moving or pushing heavy equipment, machinery, structural material, etc. Used for bridge and construction work, and by industrial plants. Also by railroads for separating cars when blocking couplers for twin loading, and for repairing steel hopper cars.

A key, guiding the standard in the shell, prevents the head of the jack from turning and slipping out of place when the jack is operated. This is a valuable time saver over the make-shift methods of using ordinary jacks with heads that turn with every stroke of the operating lever, which twist the jack out of place and make repeated settings necessary. The DUFF Positive Stop, first used in our journal jacks or low height ball bearing screw jacks, is also incorporated in the No. 3520.

The ratchet is so designed that a powerful leverage is possible over a wide angle of operation. The operating strokes may be as long or as short as the operator's position and "elbow room" will permit.

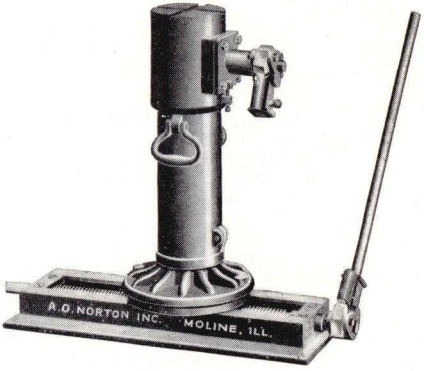
The guide key for the standard in the base is of the disengaging type, permitting it to be easily withdrawn by merely pressing down the tail, thereby permitting the standard to run down.

The gears are of steel, machine cut, running on hardened steel ball races and micro-chrome balls. The screw is heat treated; the nut is of hard bronze. The standard, or ram, is of steel, accurately machined; the base is of malleable iron.

Jack No.	Capacity Tons	Length Closed	Runout or "Raise"	Weight in Lbs.		Code Word	List Price
				Jack	Lever		
3520	35	20″	13″	82	10	**Harry**	**$85.00**

Operating Lever—Of steel, 1⅛ inch by 36 inches long, furnished with each jack.

Norton Ball-Bearing Traversing Jacks



No. 326

For Tool Car Equipment

These jacks can be easily taken off the bases and used separately if desired. The most complete Tool-Car Outfit on the market.

Ball Bearing Traversing Jacks, Complete

Jack No.	Capacity Tons	Style of Jack Used	Style of Base Used Inches	Height Over All Inches	Raise Inches	Code Word	List Price
124	15	G. B.	15	26	9½	**Band**	**$100.00**
220	25	N.A. 20	15	24	8	**Bike**	**120.00**
224	25	N.A. 24	13	28	11	**Bail**	**135.00**
226	25	N.A. 26	20	30	14	**Balloon**	**140.00**
320	35	100	20	24	8½	**Bean**	**175.00**
326	35	C-26	20	30	13	**Bated**	**175.00**
524	50	B-50-24	20	28	9⅝	**Bolt**	**200.00**
527	50	B-50-27	20	31	13⅜	**Balsam**	**200.00**
727	75	93	20	31	11⅜	**Bone**	**250.00**

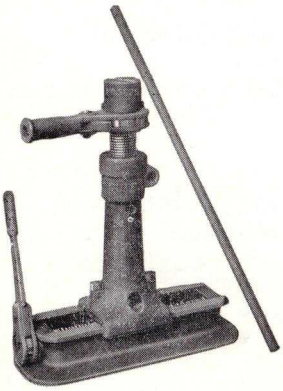
Duff Traversing Bases
For Any Type of Jack

For moving jacks horizontally while under load. Any screw or ratchet jack can be furnished mounted on one of these bases. Each base furnished with wooden operating lever. Specifications and price apply to traversing base only.

No. 40

Base No.	Capacity Tons	Horiz. Travel Inches	Height Inches	Size of Plate Inches	Weight in Lbs.		Code Word	List Price
					Base	Lever		
40	50	15	4	10x12	106	2	**Trab**	**$40.00**

Duff Screw Jack
On Traversing Base



Although this jack has been designed for locomotive use in case of derailments and is used extensively for that purpose, it is also well suited for use as a general purpose jack, moving the load horizontally as well as lifting it. Furnished with a solid steel operating lever which is also used as a carrying handle.

No. S-825

Jack No.	Capacity Tons	Height Inches	Raise Inches	Horiz. Travel Inches	Weight in Lbs.		Code Word	List Price
					Jack	Lever		
S-825	35	24	10½	12	135	20	**Inez**	On Application

Duff Telescope Screw Jacks

No. T-11

Capacities—15 to 40 Tons

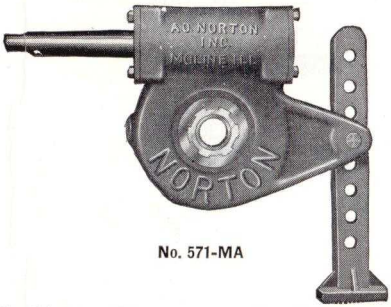
Note the very high raise of these jacks—almost as great as the height of the jacks themselves when closed. They have still another advantage over the ordinary screw jacks, in that the load can be raised much more rapidly and the jacks can be used in close quarters because of the ratchet and lever construction.

The base is made of heavy cast iron and contains a machine cut nut in which the screws operate smoothly and easily. There are only eleven parts to the entire jack. Traversing bases can be used in connection with these jacks for horizontal moving. Iron pipe (not supplied) can be used as an operating lever.

These jacks are used for bridge work, concrete form work, steel car repairing; and by contractors for general construction work.

Jack No.	Capacity Tons	Height Closed Inches	Raise Inches	Diam. of Base Inches	Weight Pounds	Code Word	List Price
T-11	15	8	7	7 1/8	37	**Iago**	**$22.00**
T-12	15	10	9	7 3/4	42	**Ibis**	**25.00**
T-13	20	13	14	8	62	**Icho**	**30.00**
T-14	25	16	18	8 3/8	75	**Idol**	**34.00**
T-15	30	16	17	8 3/8	85	**Ieng**	**40.00**
T-16	40	19	22	9 7/8	127	**Ifat**	**45.00**

Norton Air Motor Attachment



No. 571-MA

With this attachment any make of hand operated screw jack can be quickly converted into a power type by the use of an air motor with a No. 4 Morse taper chuck.

No.	Weight Pounds	Code Word	List Price	Price of Extra Hubs
571-MA	38	Amo	$55.00	$4.75 (Net)

Duff Motor Attachment

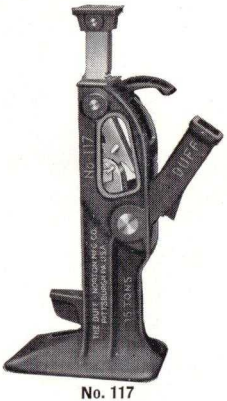
A new labor and time saving device for air or electric motor use with Screw Jacks, especially economical for car repair shops, for car and coach work and other heavy high lifting service.

No. 4085

No. 4085 ..... $55.00
No. 4086 (Permanent Type) 55.00

Duff Genuine Barrett Trip or Track Jacks

Single Acting



No. 117

The Duff Genuine Barrett trip or track jacks listed below are of the suspended pawl type, which eliminates the use of a separate tripping device, the end of the lower or short pawl serving as such. The suspended pawl design successfully overcomes the tendency (observed in other jacks of this type) of the pawl to jump out of its bearings. The base and socket lever are so reinforced at points of greatest strain, as to make the jack practically unbreakable. It is single acting, i.e., load is raised on down stroke only.

These trip jacks are intended for track work only, as they cannot be lowered gradually except by "fingering down."

Duff Track Jacks are safe and strong, and upkeep is lower than on any other make of jack on the market.

Jack No.	Capacity Tons	Height Inches	Raise Inches	* Weight Pounds	Code Word		List Price
					With Round Socket Lever	With Square Socket Lever	
117	15	22	13	60	**Disev**	**Disqu**	**$21.00†**
217	15	16½	7½	52	**Disat**	**Disom**	**19.00†**
317	15	10	5	32		**Disse**	**19.00†**
617	15	28	19	75	**Disix**	**Disxo**	**27.00†**

*Weight of wood handle 5 pounds additional.

†List price covers square socket lever to fit lining bar. Add $1.00 to list if round socket lever and wood handle is desired.

Genuine Barrett Track Jacks and Combination Trip and Lowering Jacks

Double Acting

No. 1-D

No. 110

These strong trip jacks are light, easy to operate and their maintenance is negligible.

No. 1-D is a Trip Jack with hook trip. Its action is quick and positive. An unusually popular Track Jack.

Nos. 1-A and 6-A have the regular trip—an exceedingly simple device which assures safe, quick, easy tripping. The trip is out of the way where it cannot be lost or knocked off.

No. 110 is a combination Trip and Automatic Lowering Jack and can either be tripped or, by pushing reversing lever up, can be lowered notch by notch.

The operating mechanism of Nos. 1-A and 6-A jacks is identical, so that pawls, trip, socket lever, and fulcrum pins are interchangeable.

Jack No.	Supersedes Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word		List Price
						With Round Socket Lever	With Square Socket Lever	
1-D*	1	15	22	13	60	**Zacna**	**Zacor**	**$21.00**
1-A*	1	15	22	13	58	**Disc**	**Dart**	**21.00†**
6-A*	6	15	28	19	73	**Dosix**	**Dosqu**	**27.00†**
110‡	10	15	22	13	59	**Dally**	**Dike**	**24.00†**

*Double-acting, raising on both the upward and downward stroke.

‡Double-acting, and fitted with simple automatic lowering device.

†List prices shown cover square socket lever to fit lining bar. Add $1.00 to list if round socket lever and wood handle are desired. Weight of wood handle, 5 pounds.

Duff Tie Spacer

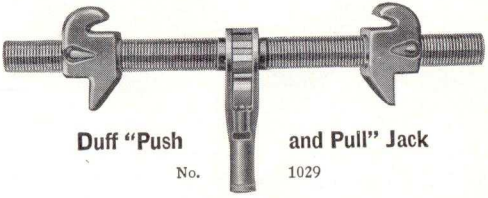
Top View Side View

A newly designed, simple device acting effectively with ANY MAKE OF TRACK JACK—**an exclusive feature. Only the tie to which the jack is applied will be moved.** No other tie is disturbed in the least.

Spacer is quickly and easily placed on either rail for moving tie in either direction, locking around the flange of the rail. Head of the jack is placed against side of Spacer, foot of jack against tie to be moved.

Tie Spacer	Weight	Code Word	List Price
No. 95	13 Lbs.	**Zabam**	**$10.00**
No. 80	13 Lbs.	**Zaawj**	**10.00**

Duff Push and Pull Jack



Duff "Push and Pull" Jack

No. 1029

Duff Jack No. 1029 is designed for pushing apart or pulling together structural members, walls, machinery, and equipment of different characters. With chains and hooks its range of application is greatly increased.

Jack No.	Capacity Tons	Pulling Mx. Mn.	Pushing Mx. Mn.	Weight Pounds	Code Word	List Price with Handle
1029	15	25″ 9½″	24″ 8½″	50	**Tefsi**	**$25.00**

Duff Genuine Barrett Automatic Lowering Jacks

No. 518

No. 539

These sturdy jacks cover a wide field of uses such as contracting, bridge building, car work, handling machinery, etc. They are made either double acting or single acting. For general service we recommend the single acting jack as being lighter, more convenient, and more efficient.

Square Lever Socket

Round Lever Socket

Double Lever Socket

Jack No.	Supersedes Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	List Price
*513	..	5	14	6	28	Loek	$15.00
*550	50	5	16	8	32	Luke	16.00
*551	51	5	21	13	40	Leak	18.00
‡518	2	10	22	12	63	Rand	25.00†
‡539	4	15	22	11	78	Fury	38.00†
‡519	19, 119, and 219	15	28	17	96	Flirt	40.00†

*Furnished with round socket lever and 3-foot steel operating bar.
‡Furnished with round socket lever and wood handle or with double socket lever and 5-foot steel operating bar if ordered.
†Deduct $1.00 from list prices if square socket lever is desired.

Duff Genuine Barrett Automatic Lowering Jacks

No. 513-A

No. 550-CR

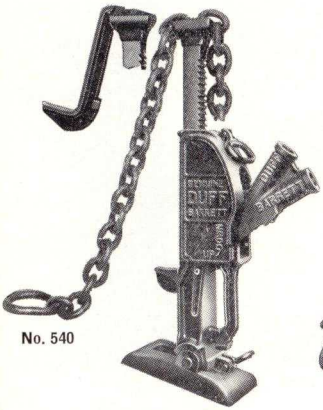
Nos. 513-A, 550-A and 551-A have the **New Duff Adjustable Footlift** which simplifies "spotting" and increases efficiency, making them more practical for low loads by increasing the footlift strength. The 550-A and 551-A are particularly useful for mine work; 513-A is especially recommended for motor truck work because of its low height.

Nos. 513-CR, 550-CR and 551-CR are equipped with the **New Duff Adjustable Cable Reel Lift** incorporating a steel hook which can be placed anywhere on the rack. It is thus enabled to pick up reels of different diameters at any height with the least amount of adjustment. These jacks, thus equipped, are widely used in pairs by telephone and telegraph companies for supporting the ends of the bar which supports the cable reel.

Jack No.	Capacity Tons	Height Inches	Raise Inches	Weight Pounds	List Price
*513-A	5	14	6	28	**$19.00†**
*550-A	5	16	8	34	**20.00†**
*551-A	5	21	13	40	**22.00†**
*513-CR	5	14	6	28	**19.00†**
*550-CR	5	16	8	34	**20.00†**
*551-CR	5	21	13	40	**22.00†**

*Furnished with round lever socket and 3-ft. steel operating lever.
†Furnished with new Duff Adjustable Foot Lift (A); with new Duff Adjustable Cable Reel Lift (CR).

Duff Barrett General Purpose Jacks and Pole Jacks



No. 540

No. 500

Exceptionally useful and dependable general purpose Jacks for rough and ready service. Sturdily built, but extremely light in weight for capacity. Conveniently handled and spotted, and easily operated by one man.

Four methods of application are possible with Nos. 510 and 540: (1) straight lifting, load applied on head; (2) with chain; (3) with claw; (4) with foot-lift.

Double socket-lever aids effective operation in close and cramped quarters.

No. 500, the Duff Pole Jack, is recommended for pulling, straightening, or moving poles of all sorts—telephone, telegraph, trolley, electric light and power, etc., no matter what size, weight, or depth in the ground, and without digging around the stump.

Jack No.	Cap. Tons	Height Inches	Raise Inches	Weight Pounds	Code Word	LIST PRICE Complete	With Claw Only	With Chain Only	Without Chain and Claw
*540	15	22⅞	12	70	Zaahs	$48.00	$42.50	$43.50	$38.00
*510	10	22	12	62	Zacpe	35.00	29.50	30.50	25.00
*500	15	37½	23	116	Polej	70.00			

*With No. 540 and No. 510 steel operating lever, chain and claw are furnished when purchased complete. With No. 500 steel operating lever and chain are furnished.

Duff Barrett Geared Automatic Lowering Jacks

No. 29A

No, 29B

These Jacks are single acting (raising and lowering load on down stroke of lever only) and the leverage is compounded by gears so that heavy loads may be lifted with ease. No. 29-A has foot lift. No. 29-B has no foot-lift. Considerable reduction of weight has been obtained by refinement of design.

The gears are machine cut and heat treated, as are all other moving parts, resulting in quick, easy, and positive action. There are no intricate parts to wear out or break. The high class materials used in their construction afford the lightest possible weight for jacks as powerful as these and still assure a wide margin of safety. Convenient for the rapid handling of heavy loads of any character.

Jack No.	Supersedes Jack No.	Capacity in Tons	Height Bar Down Inches	Raise of Bar Inches	Weight With Lever	Code Word	List Price
29-A	29	25	27¾	15¼	159	**Stani**	**$95.00**
29-B	29	25	27¾	15¼	150	**Staro**	**90.00**

Duff Auto and Truck Jacks

Nos. 08 and 09

Nos. 100 and 200

No. 305

Duff motor car and truck jacks meet, at a very moderate price, all requirements as to lifting capacity and different axle heights of the great majority of passenger cars and trucks. They are light and sturdy. All parts are heat-treated where necessary, and are accurately machined and carefully fitted together. All these jacks are furnished with steel levers.

The 1-ton capacity jacks are designed with a foot-lift which can be adjusted to any height desired, as will be noted in the illustration of jack No. 08. The 3-, 5- and 10-ton jacks are primarily intended for trucks and garage use.

Jack No.	Capacity in Tons	Height Inches	Raise Inches	Foot Lift Adjustment		Wght. with Lever Lbs.	Code Word	List Price
				Lowest	Highest			
08	1	11¾	6¾	4½″	11½″*	11¼	**Mecca**	
09	1	9¾	5	4½″	9¾″*	10	**Mesin**	
100	3	11	6	...	...	17½	**Comet**	On Application
200	5	13	6¾	...	...	30	**Autojax**	
305	10	14	6¼	...	...	40	**Otto**	

*Exclusive of "raise." Size of base, 4″ x 6″.

Duff Motor Truck Jacks

Telescope Screw Type

No. 5100

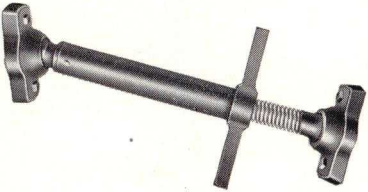
These strong telescope screw jacks are particularly useful for trucks equipped with pneumatic tires, and for any lifting work within their capacities where a low height jack with a high raise is required. Note that the raise of the screws in these jacks is equal or over the height of the jacks themselves.

They are convenient to spot and easy to operate under conditions ordinarily inaccessible with any other type of jack.

Both screws advance at the same time on the No. 5100 Jack; on Nos. 5150 and 5160 screws advance one at a time.

Jack No.	Capacity Tons	Closed Height Inches	Raise Inches	Open Height Inches	Weight with Lever Pounds	Code Word	List Price
5100	3	9½	10	19½	20	**Zaben**	On
5150	5	7½	7½	15	17½	**Zabip**	Appli-
5160	5	8¾	9¼	18	19½	**Zabma**	cation

Duff Extensible Steel Trench Braces



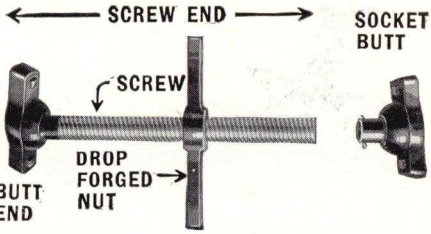
Extensible Steel Brace Complete

These braces are made with malleable fittings and steel screws—no cast iron to break and cause accidents.

You can install them in no time and remove them easily. They are safer and more economical to use than timbering, and save time and labor for installing. They are light and strong, and easily adapted to any width of trench by changing the pipe, which is standard black pipe. Can also be furnished without the pipe for those who wish to put this on themselves. Pipe should be cut shorter (by 7½″ for 1½″ screw and by 10″ for 2″ screw) than desired minimum length of brace when closed.

Pipe and Screw Diam. Inches	Length of Brace Closed Inches	Length of Screw Inches	Safe Extension of Screw Inches	Weight Pounds per Dozen	Code Word	List Price per Dozen
1½	16	10	6	180	**Abaft**	**$46.00**
1½	18	12	7	200	**Aband**	**46.00**
1½	21	14	8	212	**Abase**	**48.00**
1½	24	14	8	221	**Abba**	**48.00**
1½	27	16	9	240	**Abdal**	**52.00**
1½	30	16	9	247	**Abear**	**52.00**
1½	36	18	10	273	**Abet**	**54.00**
1½	42	18	10	300	**Abib**	**56.00**
1½	48	18	10	325	**Acme**	**58.00**
2	37	18	10	538	**Ader**	**102.00**
2	42	18	10	564	**Acorn**	**104.00**
2	48	18	10	580	**Ague**	**106.00**
2	55	18	10	608	**Afar**	**108.00**
2	61	18	10	630	**Alert**	**110.00**

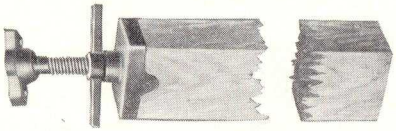
Duff Extensible Steel Trench Brace Fittings



Without Pipe. Adding Pipe Makes Brace Complete.

Diam. of Screw Inches	Lgth. of Screw Inches	Safe Extension of Screw Inches	Wt. Lbs. per Doz.	Code Word Complete	List Price Complete per Doz.	Code Word Screw Ends Only	List Price Screw Ends Only per Doz.	List Price Socket Butts Only per Doz.
1½	12	7	168	**Bait**	$40.00	**Sabre**	$30.00	$10.00
1½	14	8	180	**Bail**	42.00	**Slab**	32.00	10.00
1½	16	9	186	**Bar**	44.00	**Sled**	34.00	10.00
1½	18	10	192	**Baste**	46.00	**Sod**	36.00	10.00
2	18	10	438	**Beak**	90.00	**Spear**	66.00	24.00

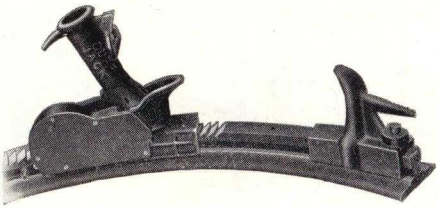
Duff Screw Fittings For Timber Braces



For bracing Mines, Subways and Excavations, as well as wide and deep Trenches

Diam. of Screw Inches	Length of Screw Inches	Size of Timber Caps Inches	Weight Pounds per Dozen	Code Word	List Price per Dozen Sets	Timber Caps per Dozen
1½	14	4 x 4	162	**Tack**	$47.00	$15.00
1½	14	6 x 6	192	**Tag**	52.00	20.00
1½	18	6 x 6	204	**Tank**	56.00	20.00
2	18	6 x 6	378	**Tar**	86.00	20.00
2	18	8 x 8	414	**Teak**	96.00	30.00

Duff Oil Well Jacks



No. 2-OW

Genuine Barrett Circle Jacks

—designed for wrenching and unwrenching oil well tools. They are universally known in the oil fields. Operating action is quick and positive. They are strong and rugged. In design and operation, they embody all the improved and time-tested Duff features. All operating parts can be readily duplicated. Each jack furnished with wood operating lever.

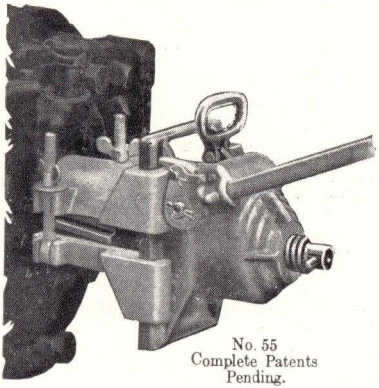
Jack No.	Action	Cap. Tools with Sqs. up to Ins.	Length of Rack	Radius of Rack Inches	Weight Complete Lbs.	Code Word	List Price
1-OW	Double	4	8′ 5″	36	194	**Uria**	$ 65.00
1-SA	Single	4	8′ 5″	36	190	**Wang**	65.00
2-OW	Double	5	9′ 0″	42	341	**Volt**	100.00
*202	Double	5	6′ 0″	..	315	**Viddle**	102.00

*Duff Gallagher Straight Line Jacks

No. 202

The rail or "rack" is straight instead of circular like the Genuine Barrett Circle Jack shown above. Furnished with wood operating lever.

Duff Pinion Puller



No. 55
Complete Patents
Pending.

The simplest, quickest, and most positive tool ever developed for use wherever motors or pinions are used extensively. The pull is absolutely uniform around the entire periphery of the pinion. Worm and screw action effects an almost unbelievable force. Made from the highest grade metals—housing and jaws are electric-steel castings; worm and screw are case hardened steel. Ball bearings used throughout.

In addition to pulling pinions, this unique tool can be very quickly and economically adapted to the removal of pulleys, small flywheels and other appurtenances from almost any kind of shaft.

Pinion Puller	Weight Pounds	Code Word	List Price
No. 55	50	**Pinpu**	**120.00**

Jaws furnished as ordered extra, as follows:

Jaws No.	Dimensions in Inches A	B	C	Weight Pounds	Code Word	List Price
J-553	3½	5½	6¼	25	**Pinaj**	**$25.00**
J-555	5	8¼	6¼	30	**Pinja**	**30.00**
J-557	7¾	10⅜	6¼	39	**Pinmi**	**40.00**
J-5510	10	11⅛	6½	45	**Pinix**	**45.00**
J-5511	11	12⅛	6½	55	**Pinol**	**50.00**

A—Minimum outside diameter of pinion that can be pulled.
B—Maximum outside diameter of pinion that can be pulled.
C—Maximum allowable distance of inner edge of pinion from end of shaft.

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